# INVESTMENT CASE STUDY

# SUBMISSION

Name: Sharmila K

# Spark Funds – Investment Analysis

**Business objective:**

To identify the best sectors, countries, and a suitable investment type for making investments.
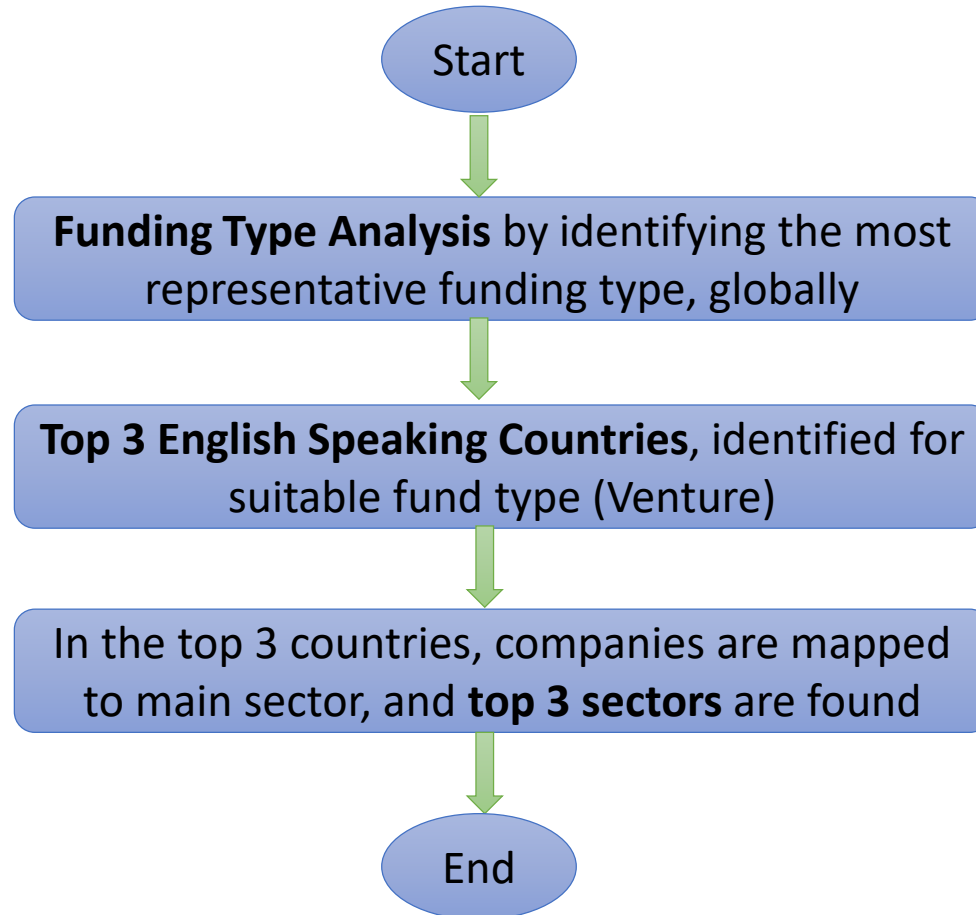
**Goals of data analysis**:

- **Investment type analysis**: Comparing the typical investment amounts in the venture, seed, angel, private equity etc. so that Spark Funds can choose the type that is best suited for their strategy.
- **Country analysis**: Identifying the countries which have been the most heavily invested in the past. These will be Spark Funds' favourites as well.
- **Sector analysis**: Understanding the distribution of investments across the eight main sectors.

## Assumptions

1. 8720 companies are in closed status. Status of company does not impact our trend analysis.

2. Funded_at does not add value to our analysis, so remove the column.

3. We are interested in finding the suitable countries, so details like state_code, city, region, founded_at, homepage_url are not irrelevant. So removing them from master_frame.

4. Funding_Round_Permalink is also not relevant, so drop the column.

5. Funding_round_code has significant no. of missing values and looks irrelevant to our analysis, so drop the column.

6. Rows with missing data is very less and there is no use of keeping records with missing values, drop them, assuming it is safe.

7. It is sufficient to provide the result of investment amount converted to Million USD.

8. The English speaking countries can be found from the pdf where English speaking countries are listed. It is a small file and can be manually looked to find the top 3 English speaking countries from the top 9 countries identified.

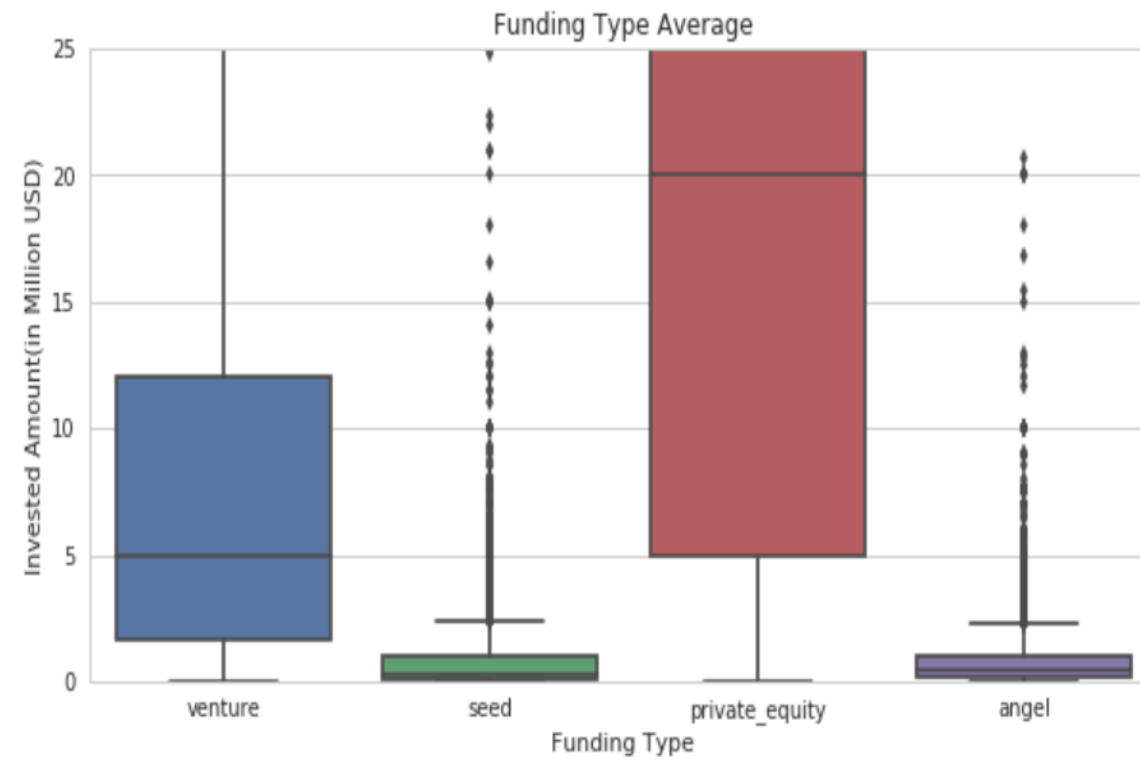# Business Analysis – Steps Performed

# Data Analysis – Steps Performed

1. Companies and rounds2 data are merged based on company_permalink.

2. The required cleaning of data and column renaming is done.

3. Columns which are not needed for analysis are removed.

4. Columns with significant no. of missing values are removed.

5. Rows where Sector, Country_code, Raised_amount_usd, Sector with missing values are removed.

6. Duplicate rows are removed.

7. Best fund type according to investment range (median of each funding type) is found as Venture type.

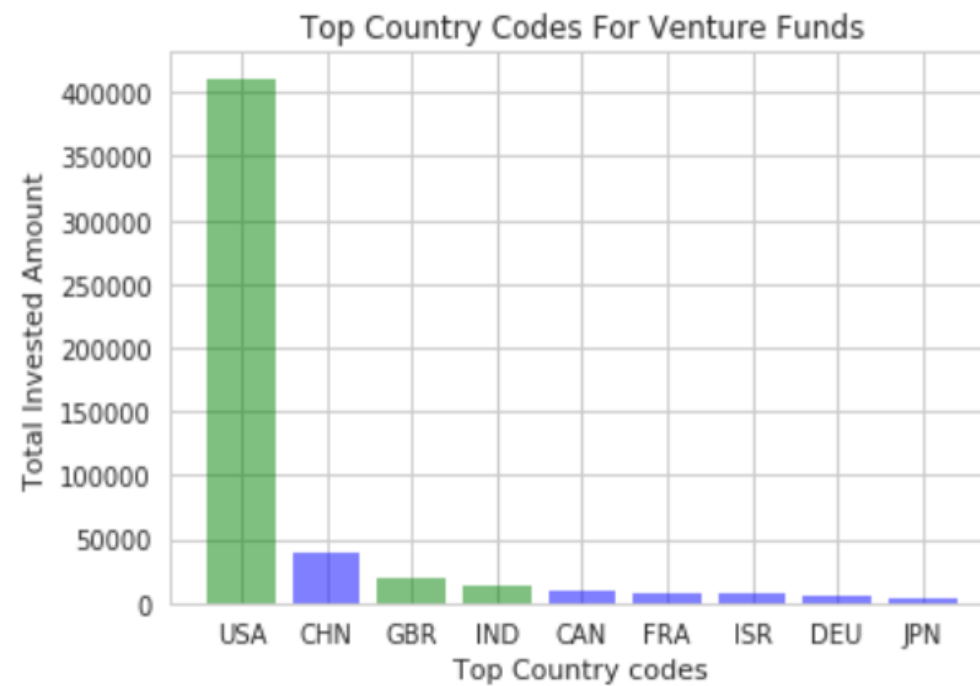8. Data is filtered for Venture fund type.

# Data Analysis – Steps Performed [Continued..]

9.  Top 9 countries are found and data is filtered.

10. Top 3 English speaking countries are identified by manually looking into the PDF containing list of English speaking countries among Top 9 countries.

11. USA, UK and India are the top 3 countries based on country_code identified.

12. Primary sector is found by splitting the Category_list to get the First Sector item and separate column is created.

13. Primary sector is mapped with sector_master to identify the main_sector and new column is created for main_sector

14. Data split into 3 dataframes 1 for each country for the investment range of 5 -15 Million USD and summary of Total Amouint and Count is done for each country.

15. Country wise data is grouped based on main_sector and top 3 sectors for each country is identified based on Count.

16. Top Company in top sector of each country is identified by grouping based on Company and getting Count.
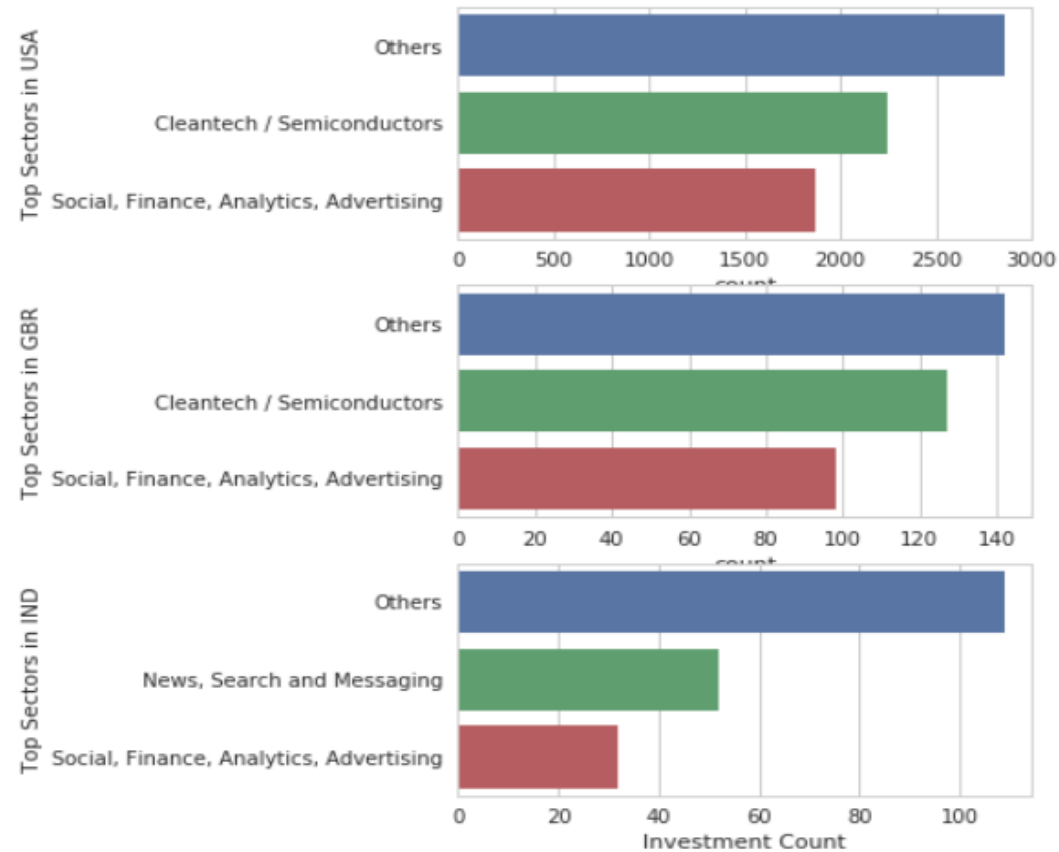
# Funding Type Analysis Plot

# Top Countries Plot



Top Country Codes For Venture Funds

English Speaking countries are highlighted in Green.

Top Sectors in Top 3 Countries – USA, GBR, IND

# Conclusions

- **Venture** Fund Type is the most suited fund.
- **USA, UK and India** are the top 3 English Speaking countries which is trending for the Venture funds. Below are the top 3 sectors country wise, assuming the top company to be considered based on the total count of investments per top sector (and not based on total investment amount per top sector).
- **USA** has the following top 3 Sectors and Companies:
    1. **Others (Sector)– Capella Photonics (Company)**
    2. Cleantech & Semiconductors (Sector) - Tigo Energy
    3. Social, Finance, Analytics, Advertising (Sector)
- **UK** has the following top 3 Sectors :
    1. **Cleantech & Semiconductors (Sector) – SenSage (Company)**
    2. Others (Sector) - Horizon Discovery (Company)
    3. Social, Finance, Analytics, Advertising (Sector)
- **India** has the following 3 Sectors trending:
    1. **Others (Sector) – Myntra (Company)**
    2. New, Search and Messaging (Sector) – GupShup (Company)
    3. Social, Finance, Analytics, Advertising (Sector)